

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for terminating a call request to a mobile unit being served by an interworking Mobile Switching Center (iMSC) in a communication system comprising a circuit-switched domain, and an Internet Protocol (IP) Multimedia Subsystem (IMS), the method comprising:

sending from the mobile unit to the iMSC a circuit-switched domain registration message;
sending from the iMSC to the IMS a registration indication on behalf of the mobile unit via SIP that identifies the iMSC as the current location at which the mobile unit can be reached;
receiving a call intended for the mobile unit at the IMS;
forwarding by the IMS the call intended for the mobile unit to the iMSC via Session Initiation Protocol (SIP) on an Mx interface, the Mx interface connecting the iMSC to a Call State Control Function (CSCF) in the IMS;
sending by a Serving ~~an~~ CSCF (S-CSCF) located in the IMS SIP messages; and
performing by the iMSC interworking between SIP call control procedures on the Mx interface and circuit-switched call control procedures towards the mobile unit.

2. (Original) A method for terminating a call request in accordance with claim 1, wherein the step of receiving a call intended for the mobile unit at the IMS comprises receiving a call request from a Public Switched Telephone Network (PSTN).

3. (Original) A method for terminating a call request in accordance with claim 2, wherein the IMS receives the call request from the PSTN via a Media Gateway Control Function (MGCF), an Interworking Call State Control Function (I-CSCF), and a Serving Call State Control Function (S-CSCF).

4. (Original) A method for terminating a call request in accordance with claim 1, wherein the step of receiving a call intended for the mobile unit at the IMS comprises receiving a call request from a second IMS.

5. (Currently Amended) A method for terminating a call request in accordance with claim 4, wherein the IMS receives the call request from the second IMS via an Interworking Call State Control Function (I-CSCF) and ~~an~~ a Serving Call State Control Function (S-CSCF).

6. (Original) A method for terminating a call request in accordance with claim 1, wherein the step of receiving a call intended for the mobile unit at the IMS comprises receiving a call request from a Public Land Mobile Network (PLMN).

7. (Currently Amended) A method for terminating a call request in accordance with claim 6, wherein the IMS receives the call request from the PLMN via ~~an~~ a Media Gateway Control Function (MGCF), an Interworking Call State Control Function (I-CSCF), and ~~an~~ a Serving Call State Control Function (S-CSCF).

8. (Original) A method for terminating a call request in accordance with claim 1, wherein the step of receiving a call intended for the mobile unit at the IMS comprises receiving a call request from a SIP endpoint.

9. (Currently Amended) A method for terminating a call request in accordance with claim 8, wherein the IMS receives the call request from the SIP endpoint via the IP multimedia network, an Interworking Call State Control Function (I-CSCF), and a Serving Call State Control Function (S-CSCF).

10. (Currently Amended) A method for terminating a call request in accordance with claim 8, wherein the SIP endpoint is outside of the Public Land Mobile Network (PLMN).

11. (Original) A method for terminating a call request in accordance with claim 1, wherein the step of sending by the S-CSCF SIP messages comprises sending the SIP messages directly to the iMSC.

12. (Currently Amended) A method for terminating a call request in accordance with claim 1, wherein the step of sending by the S-CSCF SIP messages comprises sending the SIP messages to the an Interworking Call State Control Function (I-CSCF) in the IMS.

13. (Original) A method for terminating a call request in accordance with claim 12, wherein the I-CSCF forwards the SIP messages to the iMSC.

14. (Original) A method for terminating a call request in accordance with claim 1, wherein the step of performing interworking between SIP call control procedures comprises mapping call states between SIP and an over-the-air call control protocol.

15. (Original) A method for terminating a call request in accordance with claim 1, wherein the step of performing interworking between SIP call control procedures comprises mapping messages between SIP and an over-the-air call control protocol.

16. (Original) A method for terminating a call request in accordance with claim 1, wherein the step of performing interworking between SIP call control procedures comprises mapping message parameters between SIP and an over-the-air call control protocol.